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**Before the
Federal Communications Commission
Washington, D.C. 20554**

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In the Matter of)

Reallocation of Television Channels)
60-69, the 746-806 MHz Band)

ET Docket No. 97-159

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COMMENTS OF THE STATE OF FLORIDA

1. The State of Florida, Bureau of Wireless Communications, submits these comments in response to the Notice of Proposed Rulemaking (the *Notice*) in the above referenced matter. We commend the Commission for this effort toward satisfying the urgent needs of public safety agencies for additional spectrum. As a licensed user of public safety spectrum, and an agency with regulatory responsibility for other state and local public safety agencies within Florida, we are acutely aware of these needs and have strong interests in this proceeding.
2. Our major concern with this proceeding is the extent to which radio channels can be made available in the immediate future in the most spectrum-congested areas. We understand that existing analog and DTV full service broadcast operations on channels 60-69 will be fully protected throughout the transition period until the year 2006. Within Florida, there are six full service TV stations currently licensed in the spectrum proposed for allocation to public safety¹, and three more on the TV channels adjacent to the proposed allocation². The locations of most of these stations coincide with the areas of Florida in which the need for new spectrum is the highest. In view of the protected status of the existing TV licensees, we are concerned that the public safety allocation will essentially be unusable in our most congested areas during much or all of the transition period. We urge the Commission to pursue a course (in both this proceeding and subsequent actions) which maximizes the availability of usable channels to public safety in the shortest possible timeframe.
3. We agree with the proposed allocation of channels 63, 64, 68, and 69 to public safety for the reasons stated in the Notice, particularly that these channels are subjacent to existing spectrum used by public safety. We concur that the proposed allocation offers the best potential for expansion of and interoperability with existing systems.

¹ Full-service TV stations are located in Florida in Boca Raton and Palatka on channel 63, in Inverness and Destin on channel 64, in Cocoa on channel 68, and in Hollywood on channel 69.

² Full-service TV stations are located in Florida in Venice on channel 62, in Orlando on channel 63, and in Lake Worth on channel 67.

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4. As to the potential for interference to public safety from adjacent TV operations on channels 62, 65, and 67³, we suspect that such interference would occur, but have no engineering analysis or field testing to further define the potential. We are concerned that such interference, if present, would occur in those areas of Florida in which the need for additional spectrum is the greatest, since those full service TV stations are located in the central and south Florida areas.

5. In view of the interference potential discussed above, we urge that the non-public safety portion of the proposed allocation (channels 60-62, 65-67) not be available for new broadcast licensees, and that broadcast use of the allocation be limited to existing TV licensees who will have to vacate the spectrum by the end of the transition period. This approach will minimize the potential for interference to critical land-mobile operations, and maximize the future potential of this spectrum for non-broadcast uses.

6. With regard to low power TV operations, we are concerned that in accordance with the DTV Proceeding⁴, such operations will not be required to alter or cease operations until interference actually occurs⁵. We strongly urge that the frequency coordination scheme developed subsequent to this proceeding allow for planned and orderly displacement of low power operations prior to interference actually being caused. In view of the large number of low power TV operations in Florida on these channels, the planning, construction and testing of new public safety radio systems would be severely hampered and delayed if the management of potentially severe interference problems could not begin until after new systems were actually constructed and operating.

7. We disagree in general with the statement that *"it may be possible for many low power stations operating on channels 60-69 to co-exist with public safety and other new services on a non-interfering basis."*⁶ While this may be true in isolated rural areas as stated in the Notice, we believe that existing low power TV operations will be entirely incompatible with public safety operations in and around all of the most populated areas.

8. We strongly disagree with the suggested option⁷ that *"private arrangements"* be allowed such that new licensees *"would tolerate otherwise unacceptable levels of interference from LPTV or TV translator stations"*, and further do not agree that the FCC should provide incentives to do so. Regardless of the reasonable intentions behind this option, it would inevitably spawn new difficulties if for example, a low power operator made private arrangements with one new licensee, and thereby resisted subsequent interference claims from another licensee who shares spectrum with the first new licensee. As another example, a new potential licensee who was willing to accept such *"incentives"* due to a lengthy slow-growth construction schedule would appear to receive more consideration than another potential licensee who was ready to immediately construct a new

³ See Notice at ¶ 12.

⁴ See DTV Proceeding, MM Docket No. 87-268, Sixth Report and Order, FCC No. 97-115

⁵ See Notice at ¶ 18.

⁶ See Notice at ¶ 18.

⁷ See Notice at ¶ 20.

system. The possible negative ramifications of allowing such private arrangements are endless. We do not believe that private licensees should be allowed to set the standards by which interference is measured or tolerated within public safety, even on a local basis, so long as the spectrum at issue is subject to use by other public safety agencies. While such arrangements may be acceptable in the commercial markets, we strongly believe that they have no place in public safety spectrum.

9. As to all pending TV construction permits, applications, and petitions⁸, we strongly urge the Commission to seek alternatives which place these TV operations on channels other than the proposed public safety allocation, so as to maximize the availability of channels for public safety operations. In the case of those holding construction permits who are eligible for DTV, we concur with the suggestion that those permittees be allowed to begin operations directly on their DTV channels without being required to provide analog service on channels 60-69. This would improve the availability of spectrum for public safety.

10. We strongly disagree to the suggestion that monetary compensation be allowed in arrangements between potential public safety licensees and broadcast licensees.⁹ While such arrangements may be common in commercial situations, we believe that public safety spectrum must be protected from such marketplace practices to insure that spectrum resources are distributed according to their value to the safety and welfare of the public, rather than simply to an agency's financial position. Public safety agencies do not generate funds, are not in competition with any organization, yet are mandated by governmental authority to perform their public safety functions. They should not be placed in a position of competing for spectrum on the basis of financial ability. Even the poorest of public safety agencies must provide radio communications for its personnel; they do not have such options as relocating, changing market strategy, or going out-of-business, as does a commercial organization.

11. Regarding TV station modifications such as increasing antenna heights or relocation of transmitter sites on channels 60-69¹⁰, we believe that these should not be allowed on the public safety portion of the proposed allocation. Since this spectrum is intended to serve public safety in the long run, public safety agencies should be allowed to expand their systems without risk of their expansion being precluded by prior expansion of a TV station. On the remainder of the allocation we believe that such modifications should be allowed only on a waiver basis and conditional upon both a technical showing of non-interference, and no actual harmful interference in operation, particularly to adjacent public safety operations.

12. As to the question of applications for new analog TV stations and petitions for new TV allotments on channels 60-69¹¹, we completely concur with the Commission's general suggestion that these applications be dismissed to further maximize the potential availability of this spectrum

⁸ See Notice at ¶ 21.

⁹ See Notice at ¶ 21.

¹⁰ See Notice at ¶ 21.

¹¹ See Notice at ¶ 22.

to public safety and new services. We further strongly believe that all such applications should be dismissed, not just those in the major metropolitan areas. Within Florida we are seeing a trend toward geographically larger and larger public safety radio systems managed on a cooperative basis between multiple agencies. In the case of Florida's statewide digital radio system for law enforcement, our channels must be capable of operating over large geographic areas and are not limited to the major metropolitan areas. We also concur with the Commission's suggestion that such broadcast applicants and petitioners be allowed to amend their applications or petition proposals in order to seek channels below channel 60.

13. Regarding the proposed footnote changes to the Table of Frequency Allocations¹², we concur with the Commission's proposals for elimination of footnotes NG30, NG43 and modification of NG149 as stated in the Notice.

14. Although not explicitly requested in the Notice, we offer the following suggestions for related proceedings which will address issues of spectrum management of the new public safety channels. In our experience over the past decade with management of channels under the National Public Safety Plan (821-824/866-869 MHz), we find that there are three key features of our Region-9 plan for Florida which contribute more to overall spectrum efficiency than any other. The first is a requirement that radio coverage be limited by design to a specific geographic area based on the legal jurisdiction of the applicant. In the case of the Region-9 plan, coverage is limited to 3 miles beyond the jurisdiction. This requirement tends to result in systems which are more carefully designed and engineered than had otherwise been the case under more relaxed requirements, and enables more re-use of spectrum. It is also a straightforward matter since virtually all public safety agencies are bound to a specific jurisdictional area by the governmental authorities under which they operate. The second key feature of our region plan is a requirement that each new system meet a set of interference criteria based on a ratio of desired and undesired signal strength, rather than simply a distance criteria which has traditionally been used in other cases. This requirement necessitates more careful system engineering, more detailed frequency coordination, and a more elaborate database of licensed systems (including antenna patterns), than had been previously been the case, but offers benefits which could not otherwise be achieved. The third key feature is that the database of licensed stations (and the software to utilize it) is made publicly available, which enables engineers to tailor their proposed systems to meet interference criteria prior to submitting application forms for final frequency coordination. The engineering software to accomplish this was developed specifically for use within Region-9 by our office and utilizes principles similar to those being developed by Working Group 8.8 of TIA Committee TR-8¹³. In our experience, these three key features of coverage limits, interference modeling, and public database availability have resulted in improved system designs, improved spectrum efficiency, and an improved quality of applications compared to what would have otherwise been the case. We strongly believe that the proposed new public safety spectrum should be similarly managed using recognized engineering

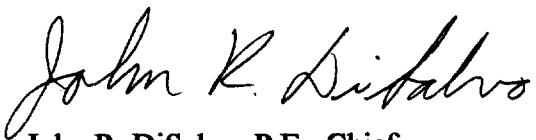
¹² See Notice at ¶ 24.

¹³ See "Wireless Communications Systems Performance in Noise and Interference-Limited Situations Modeling, Simulation and Verification", TIA/EIA PN-4077

principles such as those being developed through TIA. While we believe that the focus of day-to-day spectrum management of the proposed new public safety allocation could be successfully accomplished on a regional basis as in the National Public Safety Plan, the regional approach is not essential to achieve the desired results. Provided that suitable criteria and engineering methods are employed, and database availability exists for system designers as well as frequency coordinators, these same results could be accomplished on a larger, even national, scale. In view of the magnitude of the task involved, an approach on a larger scale than the present 51 public safety regions would appear warranted.

15. In conclusion, we appreciate the Commission's efforts on behalf of public safety, but express again our overall concern that much of the proposed allocation may be unusable in the immediate future in many of the areas in which it is most needed. We urge the Commission toward any and all actions which minimize the negative effects of broadcast operations on use of the new allocation by public safety agencies.

Respectfully submitted,



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Information Technology Program
Department of Management Services
State of Florida

September 12, 1997

JRD:RBF:Comments on 97-245.doc

cc: Governor Lawton Chiles
Senator Connie Mack
Senator Bob Graham
Joint Task Force Board of Directors
Joint Task Force Agency Heads